ABSTRACT

The present invention provides methods for treating ischemic diseases, which comprise the step of administering angiopoietin-1 (Ang1) or an Ang1-encoding vector. The present invention also provides ischemic disease treatment kits which comprise Ang1. Ang1-expressing vectors were prepared, and each was administered alone intramyocardially to rats in the acute phase of myocardial infarction to express Ang1 in the local cardiac muscle. The results indicate that marked effects have been obtained, such as decrease in post-infarction mortality rate, increase in blood vessel number in myocardium, reduction of myocardial infarct size, and improvement of cardiac function. Administration of the required VEGF was not necessary for the angiogenic activity of Ang1. Furthermore, when an Ang1viral expression vector was administered alone to an animal model of severe limb ischemia, in which ischemia had been induced by arterial ligation, a remarkable limb salvage effect was obtained. The Ang1 gene therapy is excellent as a safe and effective therapeutic method for ischemic diseases such as ischemic heart diseases and limb ischemia.